PEC UPDATE

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ISSUE HIGHLIGHTS

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Do you have questions or comments concerning the PEC, TSF, PDLS, DUE criteria, or the PEC Update?

If so, please call the Pharmacoeconomic Center at Fort Sam Houston in San Antonio, Texas.

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Measuring Medical Practice through Profiling

Practice profiling has been used and promoted by insurance companies, managed care organizations, and government agencies as a tool for analyzing medical practices. Because practice profiling has been suggested as a method to provide information for effective health care management, physicians, administrators, and other health care providers should have a basic understanding of what practice profiling is and the strengths and limitations of this method.

Medical practice profiling has been defined as the analysis of rates of events pertaining to the process or outcome of medical care provided by practitioners to defined populations. These rates may be reported as dollars spent, number of services provided, or number of outcome events occurring per capita in a given unit of time. Practitioners include the entire spectrum of health care professionals who make patient management decisions, such as physicians, dentists, physician assistants, and nurse practitioners.

Profiling uses epidemiologic methods to describe medical practices, monitor health outcomes, and assess the efficiency and quality of care. This allows administrators and policymakers to compare practitioners on dimensions of cost, utilization, quality, and access. In addition, this information can be used to assess practitioner performance for credentialing or payment purposes. Profiling has the potential to identify excesses or deficiencies in care and can be used to support efforts to improve the quality of care and the efficiency of the health care system. While profiling can describe overall patterns of resource utilization and suggest areas for improvement in quality of care or efficiency, it cannot describe details that may affect performance, such as a physician's skill in performing a physical examination, the reasoning behind a decision, or the quality of the physician-patient interaction.

Profiling has traditionally focused on the quantity of services delivered, expressed as dollars or units of service. Dollars are used

if resource management is the objective of the profiling. Although dollars provide a common unit of measure, they are not descriptive and may not reflect the true value of the services provided. Units of service, such as number of office visits, number of laboratory tests, or number of tonsillectomies, provide more meaningful utilization information than dollars spent. Service utilization can be reported as dollars per service unit (e.g., dollars per office visit, dollars per episode of illness) or as services for specific subsets of patients, such as rates of cesarean section in pregnant populations. Unfortunately, dollars or units of service fail to measure the entire medical care process a patient experiences. Patient satisfaction with care, patient access to care, and patients' understanding of care processes have not been included in the traditional profiling model.

Outcome measures consider the maintenance or attainment of patients' health; however, outcome measures do not necessarily indicate which processes should be altered or adopted to improve health. If quality problems are identified through outcome measures, the care process should be evaluated to determine causes and suggest changes. Deaths, complications, and hospital readmissions are measures often used in profiling because these outcomes are usually easy to obtain, but do not provide the type of outcome information desired. Outcomes such as the length of time to healing or resolution of symptoms are more appropriate measures for acute illnesses. Patient reported quality-of-life or functional status assessments may provide pertinent outcome information for chronic conditions. Unfortunately, this valuable outcome information is not available in current data systems.

Data that are accurate, accessible, and relevant to the objectives of profiling are difficult to obtain from a single source, thus various data sources are necessary. Administrative databases with claims information provide a description of a patient's care over an extended time period. However, claims files may be incomplete because of services not covered by the program, such as preventive services or prescription drug benefits. Additionally, claims files provide only limited outcome data, such as deaths or use of emergency services.

Patient medical records provide the most complete and detailed information about the care process and clinical outcomes. Lack of documentation of services provided, lack of consistent format for recording information, and lack of an electronic format for data retrieval make medical records cumbersome to extract data for profiling. Patient surveys can provide information on the patients' perception of care, functional status, quality of life, and access to care. Although standardized instru-ments are increasingly available to measure these dimensions of care, the instruments may not be sensitive to changes in patient status and the data may be inaccurate because of poor recall.

Although profiling has the potential to improve medical care management, the problems associated with the data must be addressed before meaningful profiling results will be available. Improving data accuracy and linking and pooling data from various sources will allow global assessments from profiling that are not presently possible.

Abstracted from:
Brand DA, Quam L, Leatherman S. Medical practice profiling: concepts and caveats. Med Care Res Rev 1995;52:223-51.

University Hospital Consortium Colony-Stimulating Factor Guidelines

PEC Update 95-10 included the American Society of Clinical Oncology (ASCO) guidelines for the clinical use of colony-stimulating factors (CSFs).[1] Additionally, the Update article described an observational study conducted by the University Hospital Consortium (UHC) to assess the appropriate use of granulocyte colony-stimulating factor (G-CSF, filgrastim - Neupogen®) and granulocyte-macrophage colony-stimulating factor (GM-CSF, sargramostim - Leukine®). UHC convened a multi-

disciplinary panel of clinicians and researchers in 1992 to develop criteria for assessing appropriate, promising, and inappropriate uses of CSFs.[2] These criteria were not published in PEC Update 95-10; however, some readers have expressed an interest in the UHC criteria. These criteria are listed below for your information. The agent considered appropriate for each indication by the UHC expert panel is included in parentheses.

Appropriate Uses

- Decrease incidence of (prevent) infection as manifested by febrile neutropenia following myelosuppressive chemotherapy in nonmyeloid malignancies (G-CSF)
- Myeloid reconstitution after autologous bone marrow transplantation (G-CSF/GM-CSF)
- Bone marrow transplantation engraftment failure or delay (GM-CSF)
- Chronic neutropenia, including cyclic, idiopathic, and congenital neutropenia (G-CSF)
- Peripheral stem cell harvesting prior to bone marrow transplantation (G-CSF/GM-CSF)
- Allogeneic bone marrow transplantation* (G-CSF/GM-CSF)
- AIDS drug-induced neutropenia* (i.e., zidovudine, ganciclovir) with an absolute neutrophil count (ANC) $< 500 \times 10^6$ cells/L (G-CSF/GM-CSF)
- Aplastic anemia* with ANC $< 500 \times 10^6$ cells/L and a history of at least 1 documented serious infection requiring antibiotic therapy (G-CSF/GM-CSF)
- Myelodysplastic syndrome* in a clinical trial protocol; or when therapy is no access to a clinical trial, with blasts < 25%, ANC $<500 \times 10^6$ cells/L, and a history of at least 1 documented serious infection requiring antibiotic therapy (G-CSF/GM-CSF)

Promising but Unproven Uses (cannot be recommended at this time)

- Treatment of established febrile neutropenia† (e.g., without infection)
- Peripheral stem cell transplantation†

Inappropriate Uses

- Neutropenia associated with the AIDS disease process
- Nonneutropenic infectious disease
- Burns
- Extensive surgery
- Chemotherapy dose intensification outside clinical trial protocol.

Other Recommendations of the UHC Expert Panel

- Very few data are available to support therapeutic interchange of G-CSF and GM-CSF; interchangeability is acceptable in limited situations, as indicated above.
- For most indications, an ANC of $< 500 \times 10^6$ cells/L is a recommended starting point for therapy. The UHC panel felt CSF therapy could be discontinued in most patients at an ANC $\geq 5000 \times 10^6$ cells/L, depending on the expected nadir of chemotherapy.
- In general patients should not receive CSFs with the first cycle of chemotherapy unless (1) they have a previously demonstrated febrile neutropenia following chemotherapy, or (2) they have had a previous positive response to CSF therapy following chemotherapy.

* Although only a limited number of published clinical studies (as of August 1992) demonstrated effectiveness conclusively, the UHC expert panel believed this therapeutic approach is beneficial.

† The UHC expert panel believed this therapeutic approach may be beneficial; however, there is a lack of published clinical studies demonstrating effectiveness (as of August 1992).

References:

1. American Society of Clinical Oncology Ad Hoc Colony-Stimulating Factor Guideline Expert Panel. American Society of Clinical Oncology recommendations for the use of hematopoietic colony-stimulating factors: evidence-based, clinical practice guidelines. J Clin Oncol 1994;12:2471-2508.
2. Yim JM, Matuszewski KA, Vermeulen LC, Ratko TA, Burnett DA, Vlasses PH. Surveillance of colony-stimulating factor use in US academic health centers. Ann Pharmacother 1995;29:475-81.

Spanish-Language AHCPR Patient Guides

Spanish-language patient guides are now available for several previously released clinical practice guidelines from the Agency for Health Care Policy and Research (AHCPR). The guidelines that are available are listed below.

These patient information guides can be obtained from the AHCPR at the following address: AHCPR Publications Clearinghouse, Attn: (publication number of patient guide), P.O. Box 8547, Silver Spring, MD 20907.

The patient guides can also be ordered by calling 1-800-358-9295, or through the AHCPR InstantFax at 301-594-2800 from a fax machine with a telephone handset.

"Anemia de celula falciforme en los recien nacidos y los bebes"
Sickle Cell Disease in Newborns and Infants
Publication no. 95-0565

"Tratamientos para la inflamacion de la prostata"
Treating Your Enlarged Prostate
Publication no. 94-0585

"La angina de pecho inestable"
Managing Unstable Angina
Publication no. 94-0605

"La insuficiencia cardiaca"
Living with Heart Disease. Is It Heart Failure?
Publication no. 94-0615

"Lo que la mujer debe saber sobre los mamogramas (rayos-x del seno)"
Things to Know About Quality Mammograms: A Woman's Guide
Publication no. 95-0635

From the Mailbag.....

PEC Q & A

Q: What impact has the PEC had on pharmaceutical expenditures within the Department of Defense?

A: The upward trend in pharmaceutical expenditures from FY 1986 to FY 1993 appears to have leveled off, and perhaps even declined in FY 1994. The exact impact of the PEC on this trend is difficult to determine because of several concomitant factors affecting pharmaceutical expenditures. These factors include a decreasing beneficiary population, low inflation rate, drug patent expirations, prime vendor initiatives, increased use of pharmacy benefits, pharmaceutical innovations, and drug patent extensions due to the GATT agreement. One way to quantify the impact of the PEC is to look at the price reductions offered by the pharmaceutical manufacturers for their products to compete for Tri-Service Formulary (TSF) status or to maintain a competitive position after a TSF selection was made. The Figure above illustrates some of the price reductions realized as a result of the PEC analyses of hypertension and acid-peptic diseases. If purchases in FY 1993 were constant through FY 1995, the price reductions reflected in the Figure would result in over $11 million in savings to the military.

Figure. Price Reductions Related to PEC Disease State Analyses